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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,245	12/21/2001	Robert Jew	3780-001-27	3401

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EXAMINER

WELLS, LAUREN Q

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,245	JEW ET AL.	
	Examiner	Art Unit	
	Lauren Q Wells	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 4 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 8-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 3-4, 8-24 are pending. The Amendment filed 12/24/03, cancelled claims 2, 5-7, and added claims 21-24.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-4, 8-17, 20-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(i) Claim 1 is vague and indefinite, as it is confusing. The instant claim recites as a limitation, “wherein said carrier is free of fluorocarbons”, but goes on to recite propellants that are fluorocarbons. Thus, the claim contradicts itself. How can the composition be free of fluorocarbons and contain fluorocarbons (i.e., trichloromonofluoromethane, tetrafluoromethane. . .).

(ii) The rejection over claim 12 is maintained for the reasons set forth in the previous Office Action. Is claim 12 a range within a range? Applicants recite “oils”, “fatty acids”, and “lipids” in the Markush group, wherein most of the other members of the Markush group are species of oils, fatty acids and lipids. Furthermore, are not lipids and fatty acids oils? The Examiner respectfully points out that no rejection was made over the term “essential oils” in the previous Office Action, as “essential oils” have a well-established definition in the cosmetic art.

(ii) The rejection of the term “esters” in claims 3 and 4 is maintained for the reasons set forth in the previous Office Action. Applicant argues, “an ester is a commonly known term

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referring to compounds containing an ester functionality". This argument is not persuasive. The instant claim does not recite compounds comprising esters, but recites esters, which refers merely to -C(O)O-.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 8-17, 20-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penska et al. in view of Mackles et al. (5,322,683).

The instant invention is directed toward a composition comprising 0.1-8% carbon dioxide, and 92-99% of a dermatologically acceptable carrier wherein said carrier is free of fluorocarbons, and optionally a propellant, and methods of applying such a composition to the skin.

Penska et al. exemplify an oil-in-water cream comprising 0.15% perfluorodecalin infused with carbon dioxide (propellant and carbon dioxide), water (carrier member), xanthan gum (ingredient for improving skin protection, appearance, moisture or texture), and 0.01% butylated hydroxy toluene (antioxidant). Additionally exemplified is a composition comprising 10% perfluorooctylbromide infused with carbon dioxide, 0.5% xanthan gum, and water. Thus, Penska et al. and the instant invention both teach a composition comprising 0.1-8% carbon dioxide, 92-99% carrier, wherein the carrier comprises water, propellant, antioxidant, and additive. The reference further teaches that propylene glycols, polyethylene glycols, glycerin,

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which is synonymous to glycerol, and squalene can be added to the composition as emollients.

Such emollients are taught as comprising 0.5-50% of the composition. See Col. 4, lines 33-54.

See Examples 3-4 in Col. 9. The reference lacks the referred propellants.

Mackles et al. teach cosmetic aerosol foams for administering a composition to the skin. Aliphatic hydrocarbon propellants such as propane, butane, isobutane, fluorocarbons, nitrogen, nitrous oxide, dimethyl ether, and Dymel 152 (1,1-difluoroethane) are taught as equivalent propellants. See abstract; Col. 8, lines 29-32.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the 1,1-difluoroethane, as taught by Mackles et al. for the fluorocarbons of Penska et al. because a) Mackles et al. teach fluorocarbons, such as those taught by Penska et al., and 1,1-difluoroethane as equivalent and cosmetically acceptable propellants, and b) because of the expectation of achieving a cosmetically acceptable aerosol product and of achieving similar/equivalent propellant properties.

Claim Rejections - 35 USC § 103

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Penska et al. in view of Mackles et al. as applied to claims 1, 3-4, 8-17, 20-22, and 24 above, and further in view of Weers et al. (2001/0046474).

Penska et al. and Mackles et al. are applied as discussed above. The references lack 1,1,1,2-tetrafluoroethane.

Weers et al. teach 1,1,1,2-tetrafluoroethane and 1,1-difluoroethane as interchangeable hydrofluorocarbons, for physiological use. See [0120].

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the 1,1,1,2-tetrafluoroethane, taught by Weers et al. for the 1,1-difluoroethane of the combined references because a) Weers et al. teach 1,1,1,2-tetrafluoroethane and 1,1-difluoroethane as equivalent and physiologically acceptable propellants, and b) because of the expectation of achieving a physiologically acceptable aerosol product and of achieving similar/equivalent propellant properties.

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Response to Arguments

The arguments against the 35 USC 102 rejection in the previous Office Action are moot, as the 35 USC 102 rejection in the previous Office Action, has been withdrawn.

Applicant argues, "Penska et al. teaches away from the claimed invention as the propellant in Applicants' invention would not be operable according to Penska et al. requiring fluorocarbons having at least 6 carbon atoms". This argument is not persuasive. As pointed out in the above rejections, both Weers et al. and Mackles et al. teach the propellants of Penska et al. and those of the instant invention as interchangeable and equivalent. Thus, it is not seen how Penska et al. teach away from the instant invention.

Applicant argues, "If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification". This argument is not persuasive. The proposed modification would not render the invention of Penska et al. unsatisfactory given the rationale in the above paragraph and because it is within the skill of the artisan in the aerosol art to substitute one propellant for another.

Applicant argues, "one of ordinary skill in the art, upon reviewing Penska et al. would be motivated to employ fluorocarbons having at least six carbon atoms, and NOT propellant compounds that are not fluorocarbons or are fluorocarbons having at less than six carbons". This argument is not persuasive. For the reasons stated in the above rejection, there is motivation to substitute the propellants of Weers et al. and Mackles et al. for those of Penska et al.

Applicant argues, "Mackles et al. fails to disclose carbon dioxide as a component of the cosmetic composition. . . So there is no reasonable basis to conclude that the carbon dioxide

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propellant in Mackles et al. would necessarily satisfy the carbon dioxide component requirement of the cosmetic composition as claimed". This argument is not persuasive, as Mackles et al. is merely relied upon to teach the interchangeability/equivalency of propellants. Penska et al., the primary reference, is relied upon to teach the carbon dioxide limitation of the instant claims.

Applicant argues, "Penska et al. is not combinable with either Mackles et al. or Zimmerman et al. as Penska et al. is limited, by its express teaching, to fluorocarbon propellants' having at least six carbon atoms". This argument is not persuasive. For the reasons stated in the above rejection and previous Office Action, there is motivation to substitute propellants of Weers et al. and Mackles et al. for those of Penska et al.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is 571-272-0634. The examiner can normally be reached on M&R (5:30-4).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lqw



**SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER**